

Amendments to the claims:

Added text is underlined and deleted text is struck through or bracketed.

1-21. Cancelled

22. (currently amended) A method of managing selected capabilities of [[a]] an electronics communications network having a plurality of devices and network nodes interconnected by a set of undirected links, each link allowing information traffic of one or more specified media types, wherein a network node comprises one or more devices, the method comprising:

(1) determining a role of each node in the communications network as either a centre node, a region member node, or a border node, and each border node as either a bridge node or a dangler node, by

a) assigning link strength values to each link in the network based on (i) a number of different media types supported by that link, (ii) a total amount of information traffic on that link over a given time interval, or (iii) a sum of fractions resulting from dividing an amount of information traffic of each media type by total information traffic on the network of that same media type,

b) organizing the assigned link strength values into an adjacency matrix representing the links between all pairs of nodes of the network, then computing a principle eigenvector of that adjacency matrix, the principle eigenvector providing a set of eigenvector centrality (EVC) indices representing connectedness for each node of the network,

c) identifying as a centre node of the network each node that corresponds to a local maximum of the EVC indices, each centre node having an associated network region of one or more nodes,

d) identifying as a region member node of a particular network region each node that may be uniquely associated according to an unambiguous rule with a single centre node, the unambiguous rule being selected from (i) a distance rule in which region members are closer in number of shortest path hops to an associated centre node than to any other centre node, or (ii) a steepest ascent rule in which region members have a steepest ascent path that will terminate at an associated centre node,

e) identifying as a ~~boundary member~~ border node between network regions each node for which the selected unambiguous rule gives more than one centre node, where the ~~boundary member~~ border nodes that lie on a non-self-retracing path between two centre nodes are further identified as bridge nodes, and all other ~~boundary member~~ border nodes are identified as dangler nodes; and

(2) using the determined role of each node to manage any one or more of network robustness, network security ~~or~~, network communication efficiency, ~~at least including~~ or control of spread of information through determined bridge nodes between network regions associated with the different centre nodes.